SPEC® CINT2006 Result

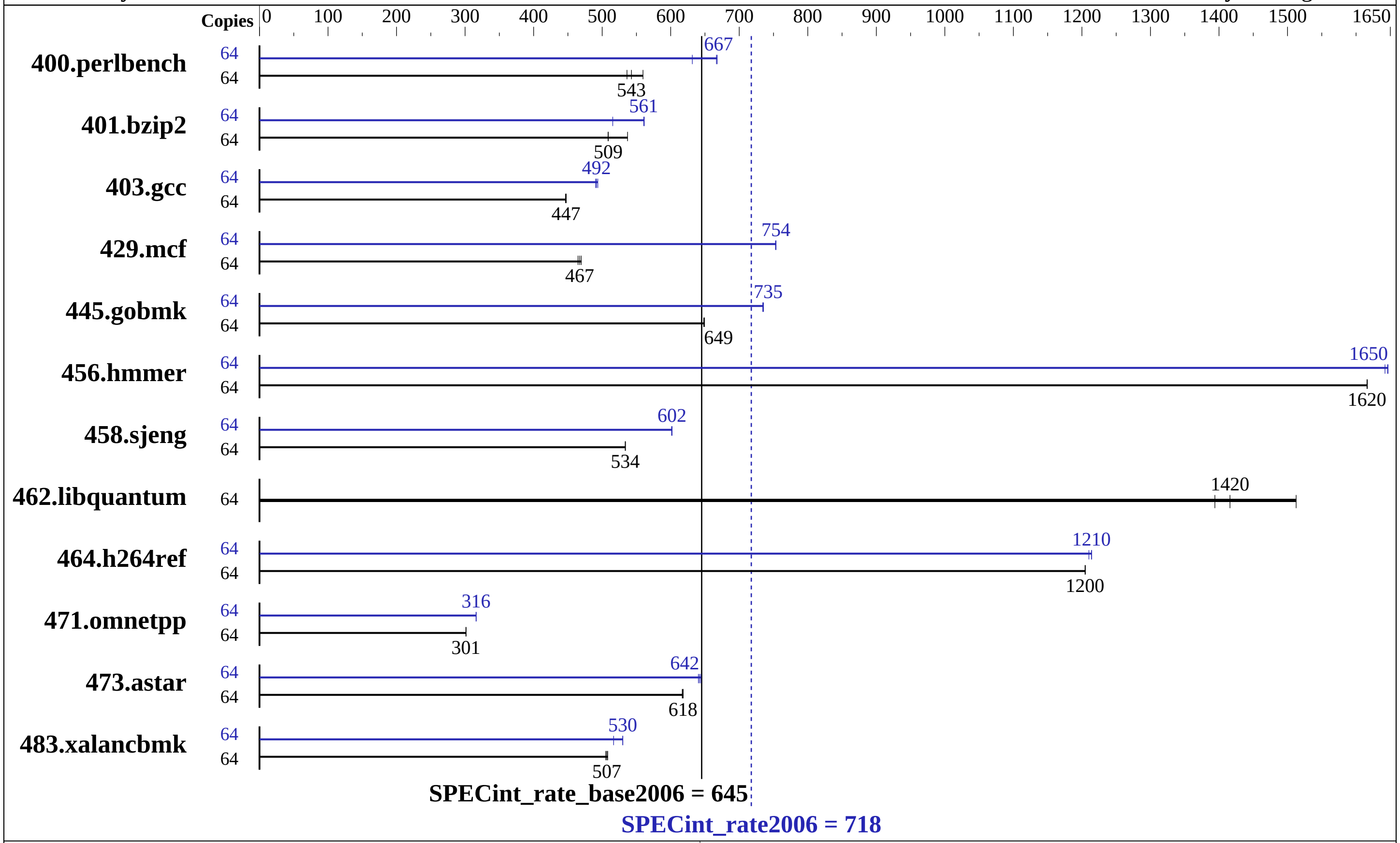
SGI

SGI Altix 4700 Density System (Itanium 2 Processor 9040 1.6GHz/18M)

SPECint®_rate2006 = 718

SPECint_rate_base2006 = 645

CPU2006 license:	4	**Test date:**	Nov-2006
Test sponsor:	SGI	**Hardware Availability:**	Jul-2006
Tested by:	SGI	**Software Availability:**	Aug-2006



Hardware

CPU Name:	Dual-Core Intel Itanium 2 9040
CPU Characteristics:	533MHz FSB
CPU MHz:	1600
FPU:	Integrated
CPU(s) enabled:	64 cores, 32 chips, 2 cores/chip
CPU(s) orderable:	2-1024 cores
Primary Cache:	16 KB I + 16 KB D on chip per core
Secondary Cache:	1 MB I + 256 KB D on chip per core
L3 Cache:	9 MB I+D on chip per core
Other Cache:	None
Memory:	128 GB (8*1GB DDR2-400 DIMMS per 4 core module)
Disk Subsystem:	1 x 146 GB SCSI (Seagate Cheetah 15k rpm)
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 9 Service Pack 3 + SGI ProPack v4.0 Service Pack 3
Compiler:	Intel C++ Compiler for Linux 9.1 (Build 20060818) MicroQuill SmartHeap Library 7.01 (www.microquill.com)
Auto Parallel:	No
File System:	xfs
System State:	Multi-user
Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	--

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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	64	1117	560	1166	536	**1152**	**543**	64	990	632	936	668	**938**	**667**
401.bzip2	64	1150	537	**1213**	**509**	1214	509	64	1198	515	**1102**	**561**	1100	561
403.gcc	64	1154	447	**1152**	**447**	1151	448	64	1044	494	1050	491	**1048**	**492**
429.mcf	64	1256	465	**1249**	**467**	1243	470	64	775	753	**774**	**754**	774	754
445.gobmk	64	1036	648	**1034**	**649**	1034	649	64	914	734	**914**	**735**	913	735
456.hmmer	64	**370**	**1620**	370	1620	369	1620	64	364	1640	**363**	**1650**	363	1650
458.sjeng	64	1451	534	**1451**	**534**	1450	534	64	1286	602	1288	601	**1286**	**602**
462.libquantum	64	877	1510	951	1390	**936**	**1420**	64	877	1510	951	1390	**936**	**1420**
464.h264ref	64	1176	1200	1175	1210	**1176**	**1200**	64	1170	1210	1166	1210	**1167**	**1210**
471.omnetpp	64	1327	301	**1328**	**301**	1328	301	64	**1266**	**316**	1265	316	1266	316
473.astar	64	**727**	**618**	728	617	727	618	64	702	640	**700**	**642**	698	644
483.xalancbmk	64	869	508	874	505	**871**	**507**	64	855	517	**833**	**530**	833	530

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

General Notes

```
Processes were bound to CPUs using dplace.
limit stacksize unlimited
```

Base Compiler Invocation

C benchmarks:
`icc`

C++ benchmarks:
`icpc`

Base Portability Flags

400.perlbench: `-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_IA64`
401.bzip2: `-DSPEC_CPU_LP64`
403.gcc: `-DSPEC_CPU_LP64`
429.mcf: `-DSPEC_CPU_LP64`
445.gobmk: `-DSPEC_CPU_LP64`
456.hmmer: `-DSPEC_CPU_LP64`
458.sjeng: `-DSPEC_CPU_LP64`
462.libquantum: `-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX`
464.h264ref: `-DSPEC_CPU_LP64`
471.omnetpp: `-DSPEC_CPU_LP64`

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Base Portability Flags (Continued)

473.astar: -DSPEC_CPU_LP64

483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:

-fast -IPF_fp_relaxed -ansi_alias

C++ benchmarks:

-fast -IPF_fp_relaxed -ansi_alias -Wl,-z,muldefs libsmartheapC64.a libsmartheap64.a

Base Other Flags

C benchmarks:

-w

C++ benchmarks:

-w

Peak Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

400.perlbench: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed -ansi_alias

Continued on next page

Peak Optimization Flags (Continued)

401.bzip2: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast -IPF_fp_relaxed -auto_ilp32 -ansi_alias`

403.gcc: `Same as 400.perlbench`

429.mcf: `-fast -IPF_fp_relaxed -auto_ilp32 -ansi_alias`

445.gobmk: `Same as 401.bzip2`

456.hmmer: `Same as 429.mcf`

458.sjeng: `Same as 401.bzip2`

462.libquantum: `basepeak = yes`

464.h264ref: `Same as 429.mcf`

C++ benchmarks:

471.omnetpp: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast -IPF_fp_relaxed -ansi_alias -Wl,-z,muldefs libsmartheapC64.a libsmartheap64.a`

473.astar: `-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast -IPF_fp_relaxed -auto_ilp32 -inline-factor=150 -ansi_alias -Wl,-z,muldefs libsmartheapC64.a libsmartheap64.a`

483.xalancbmk: `Same as 471.omnetpp`

Peak Other Flags

C benchmarks:
`-w`

C++ benchmarks:
`-w`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic91-ipf.20090715.00.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic91-ipf.20090715.00.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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